

Please amend the title on page 1 of the original specification as follows.

Application of
Jason E. Gayer

Docket

20317

for

UNITED STATES LETTERS PATENT

on

MANWAY LIFT DEVICE[[],] AND ADJUSTABLE BIASING ASSEMBLY
THEREFOR [~~AND METHODS OF MAKING THE SAME~~]

Complete set of claims showing deletions and additions in amended claims.

Deletions are enclosed in brackets with a strikeout line through the respective deletions while insertions are shown underlined, the language remaining from the original specification and/or previous amendments shown in regular type. Claim version identifier markings are enclosed in parentheses.

1. (Amended) A manway lift device comprises a right and a left upper hinge bracket, a right and a left lower hinge bracket, at least two smooth bore bushings, at least two internally threaded bushings and at least one adjustable biasing assembly, said upper hinge brackets arranged in a parallel relationship, spaced apart and rigidly attached to ~~[[the]]~~ a manway cover to be lifted, said lower hinge brackets arranged in a parallel relationship, spaced apart and rigidly affixed to a manway collar assembly receiving said manway cover, said right upper hinge bracket aligned with said right lower hinge bracket thus constituting a right-aligned pair, said left upper hinge bracket aligned with said left lower hinge bracket thus constituting a left-aligned pair, said right-aligned pair receiving one of said smooth bore bushings and one of said internally threaded bushings ~~{therethrough}~~ therein from ~~{opposite}~~ opposed directions thus comprising a bushing set, said left-aligned pair receiving one of said smooth bore bushings and one of said internally threaded bushings ~~{therethrough}~~ therein from ~~{opposite}~~ opposed directions thus comprising a bushing set, at least one of said bushings having a boss on one end thereof, said boss protruding beyond an exterior face of one said lower hinge bracket, said bushing having dogs disposed on the opposite end thereof, said dogs engaged in dog holes disposed through said upper hinge bracket, said smooth bore bushing of said bushing set receiving a bolt through the internal bore thereof, said internally threaded bushing of said bushing set threadedly receiving the threaded end of said bolt in said internally threaded bore thereof, said bolt thus rigidly affixing said bushing set to said upper hinge bracket and thereby rotatably affixing said manway cover to said manway collar, at least one boss having said adjustable biasing assembly associated therewith.

2. (Original) A manway lift device as in claim 1 wherein said adjustable biasing assembly comprises mating inner and outer housings and at least one flat wire spiral wound spring, said spring disposed between said inner and said outer housing, said outer housing rotatably engaged in said inner housing, said outer housing having at least one internal lug engageable with the outer end of said spring.

3. (Original) An adjustable biasing assembly as in claim 2 wherein said adjustable biasing assembly is associated with a fixed member comprising said lower hinge bracket, a

rotatable bushing set and a rotatable member comprising said upper hinge bracket for angularly biasing said rotatable member with respect to said fixed member.

5 4. (Original) An adjustable biasing assembly as in claim 3 wherein said inner housing is carried by said fixed member, said fixed member has said rotatable bushing set passing therethrough, said rotatable bushing set fixedly engaged in said rotatable member, said bushing set receiving and retaining the inner end of said spring therein.

5. (Original) An adjustable biasing assembly as in claim 4 wherein said fixed and rotatable members are biased by said spring in an opening relationship.

10 6. (Original) An adjustable biasing assembly as in claim 5 wherein said fixed and rotatable members have abutting stops to prevent relative movement beyond a predetermined angular displacement.

15 7. (Original) An adjustable biasing assembly as in claim 6 wherein said fixed member has a latch mechanism rotatably associated therewith, said latch mechanism comprising a latch arm having a latch hook on one end thereof, said latch hook engagable with a latch cusp carried by said rotatable member to arrest angular movement in a closing direction.

20 8. (Original) An adjustable biasing assembly as in claim 4 wherein said rotatable member is affixed to said manway cover and said fixed member is fixed to said manway collar, said rotatable member and said fixed member constituting a hinge pair for a manway access wherein said mating inner and outer housings associated with said rotatable and fixed members, respectively constitute a lift assist mechanism for said hinge pair of said manway access.

9. (Original) An adjustable biasing assembly as in claim 8 wherein the available torque of said biasing assembly is adjustable by disposing an additional flat wire spring between said mating housings.

25 10. (Original) An adjustable biasing assembly as in claim 2 wherein said outer housing is adjustably associated with said inner housing.

11. (Original) An adjustable biasing assembly as in claim 10 wherein said internal lug disposed within said outer housing engages the curved outer end of said flat wire spring.

30 12. (Original) An adjustable biasing assembly as in claim 11 wherein said outer housing has at least one stop disposed on an outer rim thereof adapted to engage internally disposed stops on said mating inner housing.

13. (Original) An adjustable biasing assembly as in claim 12 wherein said outer rim of said outer housing has six external stops.

14. (Original) An adjustable biasing assembly as in claim 13 wherein said mating inner housing has six internal stops.

15. (Original) A manway lift device as in claim 1 wherein an adjustable biasing assembly is retained on said left-aligned pair of members and an adjustable biasing assembly is retained on said right-aligned pair of members.

16. (Original) A manway lift device as in claim 1 wherein an adjustable biasing assembly is disposed on a boss protruding from each face of said left-aligned pair of members constituting a left lift assist assembly and an adjustable biasing assembly is disposed on a boss protruding from each face of said right-aligned pair of members thereby constituting a right lift assist assembly.

17. (Original) A manway lift device as in claim 1 wherein a manway retaining clamp is located between said left-aligned pair of members and said right-aligned pair of members.

18. (Original) A manway lift device as in claim 16 wherein said left lift assist assembly disposed on said left-aligned pair of members comprises two opposed co-acting biasing assemblies and said right lift assist assembly disposed on said right-aligned pair of members comprises two opposed co-acting biasing assemblies, said left lift assist assembly and said right lift assist assembly separately adjustable.

19. (Canceled)

20. (Canceled)

REMARKS:

This amendment is for the purpose of amending the Abstract of the specification in the original application, amending the drawings and amending claim 1 so that claims 1 through 18 remain in this application.

The Official Action objects to the drawings as failing to comply with 37 C.F.R. 1.84(p)(4) because the lead line for reference character 12 fails to properly indicate the upper hinge bracket in Fig. 1 and the reference character 102 fails to properly indicate the stop in Figure 2. The drawings are further objected as reference character 116 has been used to designate both a post on the spring housing and a post on the hinge bracket. The drawings are additionally objected to as reference character 76 cited on page 14 in line 24 does not appear on the drawings. Accordingly, Applicant has amended Figure 1 by deleting the lead line from reference character 12 to the lower hinge bracket and inserted a lead line from reference character 12 to the upper hinge bracket as recited in the specification. Applicant has amended Figure 2 by deleting the reference character 116 from the post on the internal face 62 of the spring housing 14 and inserted the reference character 126 as now recited in the specification on page 18 in lines 20 and 23. To be consistent with the drawings, Applicant has amended the specification on page 18 in lines 20 and 23 by deleting the number 116 and replacing the same with the number 126. Applicant has further amended Fig. 2 by inserting a stop represented by a line between the side flanges 81, 82 with a lead line from reference character 102 touching the stop. Applicant has rearranged reference numerals 27, 102 and 116 at the end of member 111 to provide clear understanding of the nature of the lead lines and numbers. Finally, in Fig. 2, Applicant has inserted the number 76 with an arrow generally pointing toward the exploded bushing set comprised of threaded bushing 15 and through bushing 16. Applicant includes herewith replacement sheets for the Figures 1 and 2 and avers that no new matter has been added to the figures by the amendments thereto as required by the office action. Applicant believes that the objections to the drawings has been overcome and that the drawings are now in full compliance with 37 C.F.R.1.84.

The Official Action objects to the specification as having the word "said" in line 3 and the use of confusing language on lines 5, 6, 7 and 9. Specifically, on line 5 the term "the hinge pairs" is confusing as it is unclear whether the "at least one hinge pair" is referred to above. In line 6, the term "each bushing set" is confusing as the bushing set has not been set forth previously. In line 7, "the threaded bushing" is confusing as it is unclear which of the threaded bushings is being referenced. In line 9, "a lift assist assembly" is confusing since it is unclear if

the adjustable biasing assembly is being referenced or if another element is being referenced. Applicant has amended the abstract in line 3 by deleting the word "said" replacing same with the article "the." Applicant has further amended the abstract in lines 5 and 7 by inserting the phrase "each of" prior to the words "the hinge pairs" in line 5 and prior to the words "the threaded" in line 7. Applicant has further amended the abstract by deleting the single word "bushing" following the words "the threaded" and inserted the plural word "bushings" in the place thereof to indicate that both bushings in both hinge pairs are being referenced. Additionally, Applicant has amended the abstract on line 6 by deleting the words "bushing set to" and inserted the words "bushings to the" in the place to overcome the objection to the use of the term "bushing set." Finally, Applicant has amended the abstract by deleting the entire last sentence thereof to overcome the objection to the use of the terms "lift assist assembly." Applicant believes that the objections to the abstract have been overcome and respectfully requests reconsideration thereof.

The Official Action objects to the title because of the title is not descriptive of the invention. The Examiner suggests removing the reference to the method. Applicant is greatly appreciative of the Examiner's suggestion and has amended the title page in the first line of the title by removing the comma after the word "device," inserted the connective "and" and further amended the second line of the title by removing the words "and methods of making the same" such that the title now reads "Manway Lift Device and Adjustable Biasing Assembly Therefor."

The Official Action objects to claims 1 - 18 because of the following recitations: in claim 1, line 4, the recitation "the manway cover" is confusing since Applicant has not set forth a manway cover above. Accordingly, Applicant has amended claim 1 by deleting the article "the" and inserting the article "a" thus establishing a manway cover for the claim set. In line 9 of claim 1, the recitation "therethrough" is confusing as it is not clear that the bushings extend through the entirety of the lower hinge bracket and the recitation "opposite directions" is confusing as it is unclear from what reference point the directions are determined. Therefore, Applicant has further amended claim 1 in both lines 9 and 11 by deleting the word "therethrough," replacing same with the word "therein" to establish that the bushings are separately received in the aligned pair of brackets and additionally amended lines 9 and 11 by deleting the word "opposite" and replacing the same with the word "opposed" to indicate the direction of insertion of the bushings into the aligned pair of brackets. In addition, the recitation "a boss on one end thereof protruding beyond an exterior face" in line 12 of claim 1 is confusing since it is unclear if the entire boss of the end of the boss protrudes beyond the exterior face. Applicant has thus amended claim 1 to recite that

the entire boss protrudes by inserting a comma following the word after the word "thereof" and inserting the words "the boss" before the word "protruding" to indicate that the entire boss protrudes beyond the exterior face of the lower hinge bracket. Finally, in line 12 of claim 1, the recitation such as "said lower hinge bracket" is deemed confusing since it is unclear to which of the plurality of lower hinge brackets set forth above is being referenced. Applicant has finally amended claim 1 in line 12 by inserting the word "one" prior to the word "said" thus indicating that the boss of the at least one of said bushings protrudes from the exterior face of the lower hinge bracket receiving the at least one of said bushings therein. Applicant avers that no new matter has been added to the specification by these amendments to claim 1. As Applicant has amended claim 1 as indicated by the Examiner, Applicant believes the objections to claim 1 have been overcome.

Applicant files herewith an Application Data Sheet showing a change of address and respectfully requests that the address shown thereupon be entered into the record such that the patent grant, when published, shows the current address for Applicant.

Applicant is greatly appreciative of the Examiner's prompt action in the examination of this docket and also greatly appreciative of the Examiner's allowance of claims 1 - 18.


Applicant is appreciative of the art made of record and not relied upon as kindly provided by the Examiner.

Applicant has amended claim 1 to overcome the Examiner's objection thereto thereby placing this application in condition for allowance. Thus, claims 1 - 18 remain in this application and Applicant respectfully requests allowance thereof.

In view of the above, an Action on the merits of this application, as amended, and an allowance thereof is respectfully requested.

Respectfully submitted,

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